No. 7900101

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## FFR Cooperative

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TALL FESCUE

'Forager'

PLANT VARIETY PROTECTION OFFICE · DEPARTMENT OF AGRICULTURE

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 1st *day of* May *in the year of our Lord one thousand nine hundred and* eighty.

*Attest:*

*Commissioner*
*Plant Variety Protection Office*
*Grain Division*
*Agricultural Marketing Service*

*Secretary of Agriculture*

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

**INSTRUCTIONS:** *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

| 1a. TEMPORARY DESIGNATION OF VARIETY | 1b. VARIETY NAME | FOR OFFICIAL USE ONLY |
|---|---|---|
| Syn I | Forager | PV NUMBER 7900101 |
| 2. KIND NAME: Tall fescue | 3. GENUS AND SPECIES NAME: Festuca arundinacea L. | FILING DATE: 8-9-79 / TIME: 3:30 A.M. (P.M.) |
| 4. FAMILY NAME (BOTANICAL): Gramineae | 5. DATE OF DETERMINATION: November, 1976 | FEE RECEIVED: $ 500.00 / $ 250.00 / DATE: 8-9-79 / 2/29/80 |
| 6. NAME OF APPLICANT(S): FFR COOPERATIVE | 7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*): 4112 East State Road 225, West Lafayette, IN 47906 | 8. TELEPHONE AREA CODE AND NUMBER: 317/567-2115 |
| 9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*) Corporation | 10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION: Wisconsin, 3/11/60 | 11. DATE OF INCORPORATION: March 11, 1960 |

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:

Samuel D. Stratton, 4112 East State Road 225, W. Lafayette, IN 47906

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? [X] YES [ ] NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? [X] FOUNDATION [ ] REGISTERED [X] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

August 2, 1979 — (DATE)

Samuel D. Stratton — (SIGNATURE OF APPLICANT)

1

(DATE)

(SIGNATURE OF APPLICANT)

## INSTRUCTIONS

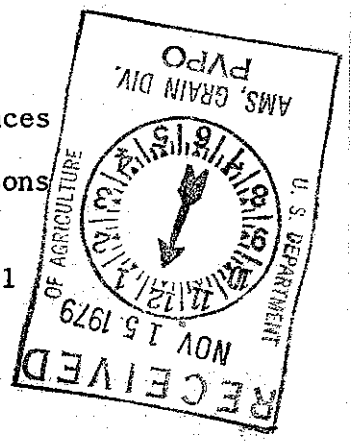
GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.




13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A, Origin and Breeding History of the Variety.

Tall fescue clones were visually selected from public varieties and plant introductions that had been established as microplots at FFR's research farm near Lafayette, Indiana. These selections were placed in a polycross block in 1970. Polycross seed was collected in 1971, and progeny yield tests established as solid seeded plots. The twelve clones of Forager were selected in 1973, based on clonal data and the polycross progeny test. Clone numbers of Forager and their source are as follows: Clones 9148, 9248 and 9289 selected from Kenwell; clones 9190, 9227, 9037 and 9132 selected from Fawn; clones 9157, 9024 and 9170 selected from Ky-31; clone 9350 is P. I. 221032; clone 9395 is P. I. 283286.

Vegetative portions of the original twelve clones of Forager were transplanted in the Williamnette Valley near Eugene, Oregon, for the production of breeder seed. Foundation seed fields have been established from breeder seed. Certified fields may be established from breeder or foundation seed. The twelve original clones are maintained by FFR Cooperative near Lafayette, Indiana.

Exhibit A (additional information)

Variants. No variants have been observed in solid-seeded plots of 'Forager' at any of FFR's test locations. No variants were observed in the thinly seeded rows at Lafayette, Indiana in 1978 or 1979.

Stability through generations. I have contacted Mr. Ralph Wade, of Western Farmers Association in Salem, Oregon, concerning the uniformity of Forager seed fields in that area. He responded that Mr. Oscar Goodbroad, the inspector representing Oregon State University Seed Certification, had found the foundation seed field of Forager to be quite uniform at time of heading. Mr. Wade's own observation was one of excellent uniformity and no off-types.

Exhibit B (additional information)

Comparative data of Forager with all tall fescue varieties is not available. However, data previously submitted in Tables 1-23 does compare Forager with the two most widely grown tall fescue varieties presently in use in the United States, 'Ky 31' and 'Fawn.'

Forager most closely resembles Ky 31 in plant type, growth habit and area of adaptation. It is distinguishable from Ky 31 by the following characteristics:

1) Forager has significantly darker green leaves, based on visual ratings (Table 12).

2) Forager has significantly wider leaves than Ky 31, based on both visual ratings (Table 11), and measurement of the first leaf below the flag leaf (Table 22).

3) The first leaf below the flag leaf of Forager is significantly longer than that of Ky 31 (Table 23).

4) Forager is significantly earlier in maturity than Ky 31 in most years (Tables 8-10).

Forager also closely resembles the variety Fawn in plant type, growth habit, maturity and area of adaptation. It is distinguishable from Fawn by the following characteristics.

1) Forager has significantly wider leaves than Fawn, based on both visual ratings (Table 11) and measurement of the first leaf below the flag leaf (Table 22).

2) The first leaf below the flag leaf of Forager is significantly longer than that of Fawn (Table 23).

TABLE 11

LEAF WIDTH RATINGS[1]
ON TALL FESCUE PLOTS AT
WARSAW, VA (Nursery 3)

| Variety | Leaf Width 5-12-76 |
|---|---|
| Forager | 1.3 |
| Alta | 1.7 |
| Fawn | 2.0 |
| Ky-31 | 2.8 |
| LSD .05 | 0.66 |

[1] rating: 1 = widest leaf;
9 = narrowest leaf

TABLE 12

COLOR RATINGS[1]
ON TALL FESCUE PLOTS AT
FRANKLIN, KY (Nursery 5)

| Variety | Color 5-24-78 |
|---|---|
| Forager | 1.7 |
| Fawn | 2.5 |
| Ky-31 | 4.7 |
| LSD .05 | 1.16 |

[1] rating: 1 = darkest color;
9 = lightest color

TABLE 17

LEAF DISEASE RATINGS[1]
ON TALL FESCUE PLOTS AT
LAFAYETTE, IN (Nursery 1)
and
FRANKLIN, KY (Nursery 2)

| | Nursery 1 | Nursery 2 | | |
|---|---|---|---|---|
| | 11-14-77 | 8-11-76 | 10-12-76 | 10-17-77 |
| Variety | Leaf Spot | Rust | Leaf Spot | Leaf Spot |
| Forager | 5.8 | 4.8 | 3.8 | 6.3 |
| Alta | 5.8 | 2.5 | 3.5 | 4.8 |
| Fawn | 6.8 | 3.2 | 4.7 | 7.2 |
| Ky-31 | 4.5 | 4.5 | 3.8 | 5.7 |
| LSD .05 | 1.08 | 1.02 | 1.06 | 1.68 |

[1] rating: 1 = most resistant; 9 = least resistant

TABLE 20

TALL FESCUE SEED
CHARACTERISTICS EVALUATION[1]

| Variety | Seed Length (mm) | Seed Width (mm) | Seed Weight (g/1000 seeds) | Seed Color[2] |
|---|---|---|---|---|
| Forager | 7.2 | 1.3 | 2.5 | 5.1 |
| Fawn | 6.7 | 1.4 | 2.5 | 3.1 |
| Ky-31 | 6.1 | 1.2 | 1.7 | 6.4 |
| LSD .05 | 0.27 | 0.06 | 0.35 | 1.05 |

[1] seed characteristics evaluated at FFR Cooperative

[2] rating: 1 = darkest color; 9 = lightest color

TABLE 21

HEIGHT OF TALL FESCUE PLANTS

AT LAFAYETTE, INDIANA

| Variety | Height (mm) |
|---|---|
| Forager | 1175 |
| Fawn | 1114 |
| Ky-31 | 1099 |
| LSD .05 | n.s. |

TABLE 22

LEAF WIDTH OF TALL FESCUE PLANTS

AT LAFAYETTE, INDIANA

| Variety | Leaf Width (mm)* |
|---|---|
| Forager | 7.5 |
| Fawn | 6.2 |
| Ky-31 | 6.8 |
| LSD .05 | 0.60 |

*First leaf below flag leaf.

TABLE 23

LEAF LENGTH OF TALL FESCUE PLANTS

AT LAFAYETTE, INDIANA

| Variety | Leaf Length (mm)* |
|---|---|
| Forager | 262.3 |
| Fawn | 213.1 |
| Ky-31 | 206.7 |
| LSD .05 | 30.86 |

*First leaf below flag leaf.

FORM GR-470-37
(3-76)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

# OBJECTIVE DESCRIPTION OF VARIETY
## FESCUE
(Festuca spp.)

| NAME OF APPLICANT(S) | VARIETY NAME OR TEMPORARY DESIGNATION |
|---|---|
| FFR COOPERATIVE | Forager |
| ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code)* | FOR OFFICIAL USE ONLY |
| 4112 East State Road 225<br>West Lafayette, IN 47906 | PVPO NUMBER<br>7900101 |

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Ranges may be given also. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: visual rating. Describe location of test area Lafayette, Indiana
All questions need not be answered, however, completeness should be striven for in order to establish the most adequate Variety Identification.

**1. SPECIES: (With comparison varieties for use below - use varieties within species of application variety)**

[1]

1 = F. ARUNDINACEA (TALL) 11 = ALTA 12 = FAWN 13 = GOAR 14 = KENTUCKY 31
2 = F. PRATENSIS (MEADOW) 21 = ENSIGN 22 = TRADER
3 = F. RUBRA SSP. COMMUTATA (CHEWINGS) 31 = CASCADE 32 = HIGHLIGHT 33 = JAMESTOWN
4 = F. RUBRA SSP. RUBRA (RED) 41 = BOREAL 42 = PENNLAWN 43 = DAWSON
5 = F. OVINA VAR. OVINA (SHEEP)
6 = F. LONGIFOLIA (HARD) 61 = DURAR 62 = BILJART (C-26) 63 = SCALDIS
7 = OTHER (SPECIFY) F. _____

**2. CYTOLOGY**

[4][2] 2n CHROMOSOME NUMBER

**3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)**

[0] NORTHEAST [2] SOUTHEAST [2] NORTH CENTRAL [2] PACIFIC N.W. [ ] OTHER (SPECIFY) _____

**4. MATURITY: (50% Headed) Give Test Area** Lafayette, IN - See Exhibit D.

| | | |
|---|---|---|
| [ ][ ] DAYS EARLIER THAN | [ ][ ] | COMPARISON VARIETY |
| MATURITY SAME AS | [ ][ ] | |
| [ ][ ] DAYS LATER THAN | [ ][ ] | |

**5. PLANT HEIGHT: (At maturity to top of panicle)**

[1][1][7][5] mm HEIGHT

| | | |
|---|---|---|
| [ ][ ] mm SHORTER THAN | [ ][ ] | COMPARISON VARIETY |
| HEIGHT SAME AS | [ ][ ] | |
| [7][6] mm TALLER THAN | [1][4] | |

**6. GROWTH HABIT (Mature)**

[1] 1 = ERECT (KENTUCKY 31) 2 = SEMI-ERECT (HIGHLIGHT) 3 = PROSTRATE

**7. RHIZOMES** No data.

[ ][ ] mm LENGTH [ ][ ] mm WIDTH

[ ] 0 = ABSENT 1 = WEAKLY CREEPING (DAWSON) 2 = STRONGLY CREEPING (BOREAL) 3 = OTHER _____

**8. LEAF BLADE:**

[4] COLOR: 1 = LIGHT GREEN (GOLFROOD) 2 = MODERATELY LIGHT GREEN (HIGHLIGHT) 3 = MEDIUM GREEN (JAMESTOWN, KENTUCKY 31)
4 = DARK GREEN (CASCADE) 5 = BLUEGREEN 6 = GRAYGREEN 7 = OTHER(SPECIFY) _____

**8. LEAF BLADE:**

[ ] ANTHOCYANIN: 0 = ABSENT 1 = PRESENT [ ] HAIRS (BASAL): 0 = ABSENT 1 = PRESENT [ ] MARGINS: 1 = SMOOTH 2 = SEMI-ROUGH 3 = ROUGH

[2][6][2] mm LENGTH (FIRST LEAF BELOW FLAG LEAF) [7][.5] mm WIDTH

[ ][ ] mm SHORTER THAN . . . . [ ][ ] mm NARROWER THAN [ ][ ]

LENGTH SAME AS . . . . . [ ][ ] COMPARISON VARIETY WIDTH SAME AS . . [ ][ ] COMPARISON VARIETY

[5][5] mm LONGER THAN . . . . [1][4] [0][.7] mm WIDER THAN . . [1][4]

**9. LEAF SHEATH (Plant Base):**

[1] COLOR: 1 = WHITE (HIGHLIGHT) 2 = RED [0] AURICLE HAIRINESS: 0 = ABSENT 1 = PRESENT

2 2 18 4/13/81 Red in seedling Stage

**10. PANICLE (Mature plant)**

[ ][ ][ ] NUMBER OF PANICLES PER PLANT (FIRST YEAR OF PRODUCTION - FALL OR SPRING PLANTING SPECIFY _____

[ ][ ][ ] mm LENGTH [ ][ ][ ] GRAMS OF SEED PER PANICLE

[ ][ ] mm SHORTER THAN . . . [ ][ ] [ ][ ] GRAMS LESS SEED THAN [ ][ ]

LENGTH SAME AS . . . [ ][ ] COMPARISON VARIETY WEIGHT SAME AS . . [ ][ ] COMPARISON VARIETY

[ ][ ] mm LONGER THAN . . . [ ][ ] [ ][ ] GRAMS MORE SEED THAN [ ][ ]

[1] SHAPE: 1 = NARROW-TAPERING 2 = EGG SHAPE 3 = OBLONG 4 = OTHER (SPECIFY) _____

[2] TYPE: 1 = OPEN 2 = INTERMEDIATE 3 = COMPACT

[1] HABIT: 1 = ERECT 2 = NODDING

[ ] BRANCHES: 1 = SMOOTH 2 = ROUGH

[1] COLOR (At 50% flowering): 1 = YELLOWISH GREEN 2 = GREEN 3 = BLUISH GREEN 4 = PURPLISH 5 = REDDISH 6 = OTHER (SPECIFY) _____

**11. PALEA:**

[ ] HAIRS (ON KEELS): 0 = ABSENT 1 = SHORT (OLDS) 2 = LONG (RAINIER)

**12. LEMMA:**

[ ] HAIRS: 0 = ABSENT 1 = PRESENT [ ] TEXTURE: 1 = SMOOTH 2 = ROUGH

[ ][ ] mm LEMMA LENGTH [ ][ ] mm LEMMA WIDTH

[ ][ ] mm SHORTER THAN . . . . [ ][ ] [ ][ ] mm NARROWER THAN [ ][ ]

LENGTH SAME AS . . . . [ ][ ] COMPARISON VARIETY WIDTH SAME AS . . . [ ][ ] COMPARISON VARIETY

[ ][ ] mm LONGER THAN . . . . [ ][ ] [ ][ ] mm WIDER THAN. . . [ ][ ]

[1] AWNS: 0 = ABSENT 1 = PRESENT

[ ][ ] mm AWN LENGTH

FORM GR-470-37 (PAGE 3)

12. LEMMA: No data. 7900101

mm SHORTER THAN . . .
LENGTH SAME AS . . . . } COMPARISON VARIETY
mm LONGER THAN . . . .

13. SEED:

7.20 mm LENGTH
1.3 mm WIDTH

mm SHORTER THAN . .
LENGTH SAME AS . . } COMPARISON VARIETY
1.10 mm LONGER THAN . . 14

mm. NARROWER THAN
WIDTH SAME AS . . } COMPARISON VARIETY
0.1 mm WIDER THAN . . 14

2.5 GRAMS PER 1000 SEED

GRAMS LESS THAN .
WEIGHT SAME AS . } COMPARISON VARIETY
0.66 GRAMS MORE THAN . 14

14. DISEASE, INSECT, AND NEMATODE (O = Not Tested, 1 = Susceptible, 2 = Resistant): See Exhibit D.

| | | |
|---|---|---|
| HELMINTHOSPORIUM VAGANS | H. SOROKINIANUM | H. DICTYOIDES |
| RHIZOCTONIA SOLANI | ERYSIPHE GRAMINIS | USTILAGO STRIIFORMIS |
| FUSARIUM NIVALE | F. ROSEUM | TYPHULA IOTANA |
| PUCCINIA GRAMINIS | P. STRIIFORMIS | P. POAE-NEMORALIS |
| P. CORONATA | PYTHIUM ULTIMUM | CORTICIUM FUSCIFORME |
| SCLEROTINIA HOMEOCARPA | INSECT _____ | NEMATODE _____ |
| OTHER _____ | OTHER _____ | OTHER _____ |

15. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate degree of resemblance (D.R.) by placing in the column marked, D.R., one of the following numbers:
1 = Application variety is less than comparison variety 2 = Same as
3 = More than, better, greater, darker, more disease resistant, etc.

| CHARACTER | VARIETY | D.R. | CHARACTER | VARIETY | D.R. |
|---|---|---|---|---|---|
| RHIZOME LENGTH | | | GROWTH HABIT | 14 | 2 |
| LEAF WIDTH | 14 | 3 | LEAF COLOR | 14 | 3 |
| PANICLE COLOR | 14 | 2 | PANICLE SHAPE | 14 | 2 |
| WINTER COLOR | | | COLD INJURY | | |
| SHADE TOLERANCE | | | HEAT | | |
| DROUGHT | | | DISEASE* Leaf Spot | 14 ped 11/15/79 | 2 |
| | | | | | |

*Specify each disease evaluated.

EXHIBIT D, Additional Description of the Variety.

Forager is similar to Alta and Fawn in maturity, and in most years is earlier than Ky-31 (Tables 8-10).

Resistance of Forager to leaf spot and rust was equal to, or less than, that of Fawn, Alta and Ky-31 (Table 17).

TABLE 8

MATURITY RATINGS[1]
OF TALL FESCUE PLOTS AT
LAFAYETTE, IN (Nursery 1)

| Variety | 1976 | 1977 | 1978 |
|---|---|---|---|
| Forager | 1.7 | 4.2 | 2.7 |
| Alta | 2.0 | 5.0 | 3.2 |
| Fawn | 1.2 | 1.0 | 1.0 |
| Ky-31 | 4.5 | 7.8 | 3.7 |
| LSD .05 | 0.80 | 1.43 | 1.13 |

[1] rating: 1 = earliest; 9 = latest

TABLE 9

MATURITY RATINGS[1] OF TALL FESCUE PLOTS AT FRANKLIN, KY

| Variety | Nursery 2 | | Nursery 5 |
|---|---|---|---|
| | 1976 | 1977 | 1978 |
| Forager | 1.9 | 1.2 | 2.0 |
| Alta | 1.0 | 2.0 | --- |
| Fawn | 2.0 | 1.0 | 2.2 |
| Ky-31 | 1.2 | 3.8 | 4.7 |
| LSD .05 | 0.62 | 0.51 | 1.15 |

[1] rating: 1 = earliest; 9 = latest

TABLE 10

MATURITY RATINGS[1]
OF TALL FESCUE PLOTS AT
WARSAW, VA (Nursery 3)
and
MARSHALL, MO (Nursery 4)

| Variety | Nursery 3 | | Nursery 4 |
|---|---|---|---|
| | 1976 | 1977 | 1977 |
| Forager | 1.0 | 3.3 | 1.0 |
| Alta | 1.3 | 2.3 | 6.0 |
| Fawn | 1.2 | 1.7 | 1.0 |
| Ky-31 | 2.8 | 4.0 | 6.6 |
| LSD .05 | 0.40 | 1.12 | 1.01 |

[1] rating: 1 = earliest; 9 = latest